

Foreword: Gravity Workshop 2004

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Gravity 2004 was organized by the Australian National Institute for Theoretical Astrophysics (ANITA) and hosted by the University of Sydney on the 15th and 16th of April, 2004. The goal of *Gravity 2004* was gather experts from the broad discipline of gravity research and provide participants with the opportunity to obtain a deeper understanding for other areas of gravity research both in theory and application. The interdisciplinary nature of this workshop provided an excellent opportunity for creating ideas and learning, focussing on review and short research talks with discussion times.

The meeting was a great success, with invited review talks on pulsar timing by Matthew Bailes, numerical methods of general relativity by Leo Brewin, gravitational lensing by Rachel Webster, and *N*-body techniques by Alexander Knebe, revealing the breadth of gravity-related research in Australia. In another review, Rosemary Mardling illustrated complexity within the apparent simplicity of Newtonian orbits, while Andrew Melatos and Zdenka Kuncic revealed the extreme environments of neutron stars and supermassive black holes in active galaxies. In the remaining reviews, George Hobbs and David McClelland gave us a glimpse of the future with

gravitational wave astronomy. A selection of these papers, chosen for wide general interest, appear in the following pages of *PASA*.

While these review talks were very educational, illustrating current international standing in the field of gravity-based research, the meeting also hosted several smaller talks focussing upon the work of younger researchers. Through a whole range of topics, these revealed that we can expect that the future of gravitational science within Australia will similarly remain strong. In all, it was a very successful meeting.

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References

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